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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,859	02/16/2001	Charles H. Blankenship	GO5-003	7364

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WELLS ST. JOHN ROBERTS GREGORY & MATKIN P.S.
601 W. FIRST AVENUE
SUITE 1300
SPOKANE, WA 99201-3828

EXAMINER
COBURN, CORBETT B

ART UNIT	PAPER NUMBER
3714	5

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/785,859	BLANKENSHIP, CHARLES H.	
	Examiner	Art Unit	
	Corbett B. Coburn	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 February 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1. The present Application is a divisional of 09/205,045. Presumably the art cited in that case would have relevance to this Application. If Applicant wishes to have this art considered, then a proper IDS must be submitted.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The amendment filed 12 May 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Claim 43, 46 & 48 directed to the impedance to output. The original specification did not contain any reference to impedance whatsoever.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 43, 46 & 48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not contain any reference to impedance whatsoever.

6. Claims 43, 46 & 48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not contain any reference to impedance whatsoever.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 21-28, 30-39, 41, 44, 45 & 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Wash (US Patent Number 5,692,966).

Claims 21, 30, 34: Wash teaches a golf club swing analyzer with a housing. (Fig 1) There is a light emission device (16) configured to emit reference light toward a swung golf club. There is a light reception device (17) configured to receive reference light

emitted from the light emission device and reflected from the golf club. (Figs 1 & 10-12) There is discrimination circuitry (Fig 13) coupled to the light reception device and configured to discriminate the received reference light from incidental light and generate an indication signal responsive to the discrimination of the received reference light and the incidental light. (Abstract)

Claim 22: The discrimination circuitry is configured to generate the indication signal to indicate the reception of the received reference light. (Abstract)

Claims 23-25, 31-33: The discrimination circuitry is configured to generate the indication signal only responsive to the reception of the received reference light and not responsive to reception of incidental light. (Col 3, 1-30)

Claims 26, 36: The light emission device is configured to emit the reference light in a plurality of pulses having a duration less than a duration of one of the rise time and fall time resulting from the swung club blocking reception of incidental light within the light reception device. Wash teaches a pulse having a duration of 40 microseconds. (Col 3, 7-

Claim 27: Wash shows a timed pulse (i.e., the alarm signal) generated by the discrimination signal responsive to reception of the reference light within the light reception device. The timed pulse has a duration greater than the reference light pulse and less that an individual one of the rise time and fall time. If the alarm duration were not greater than 40 microseconds (the reference light pulse duration), it would be impossible for the human ear to detect. The alarm only sounds when the reference light is received by the receptor (17), so it must have a duration of less than the rise time or the fall time – at some point in the rise or fall, the light will not be received by the receptor.

Claims 28, 37, 42, 45: Wash teaches a processor coupled to the discriminator circuitry that is configured to process the indication signal. (Fig 13) There is a display (24) coupled with the processor. The processor is configured to control the display to indicate detection of the swung golf club responsive to processing of the indication signal. (Abstract)

Claims 35, 41, 44, 47: The received incidental light is defined as any light received by the circuitry configured to receive reference light that is not emitted by the circuitry configured to emit the reference light – that's what "incidental light" is.

Claim 38: Claim 38 is a combination of claims 21, 24 & 28 rejected above.

Claim 39: Wash teaches a light emission device (16) configured to emit the reference light toward the swung club.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 29, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wash as applied to claim 21 (if applicable) above, and further in view of Bouton (US Patent Number 5,718,639).

Claim 29: Wash teaches the invention substantially as claimed, but does not teach a plurality of light emission devices and a plurality of corresponding light reception devices positioned on a housing. Bouton teaches such a configuration. (Fig 2) Wash can only be

used to determine if the head of the club is properly aligned because it only has one emitter and one detector. Bouton can determine not only if the head is aligned, it can determine the height, position, and speed of the club head. (Fig 9) Providing additional information would improve the ability of the golfer. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Wash in view of Bolton to include a plurality of light emission devices and a plurality of corresponding light reception devices positioned on a housing in order determine the height, position, and speed of the club head in addition to the alignment of the head in order to provide additional information that would improve the ability of the golfer.

Claim 40: Wash teaches the invention substantially as claimed. Wash teaches a golf club swing analyzer with a housing. (Fig 1) There is a light emission device (16) configured to emit reference light toward a swung golf club. There is a light reception device (17) configured to receive reference light emitted from the light emission device and reflected from the golf club. (Figs 1 & 10-12) There is discrimination circuitry (Fig 13) coupled to the light reception device and configured to discriminate the received reference light from incidental light and generate an indication signal responsive to the discrimination of the received reference light and the incidental light. (Abstract) The light emission device is configured to emit the reference light in a plurality of pulses having a duration less than a duration of one of the rise time and fall time resulting from the swung club blocking reception of incidental light within the light reception device. Wash teaches a pulse having a duration of 40 microseconds. (Col 3, 7-9) Wash shows a timed pulse (i.e., the alarm signal) generated by the discrimination signal responsive to

reception of the reference light within the light reception device. The timed pulse has a duration greater than the reference light pulse and less that an individual one of the rise time and fall time. If the alarm duration were not greater than 40 microseconds (the reference light pulse duration), it would be impossible for the human ear to detect. The alarm only sounds when the reference light is received by the receptor (17), so it must have a duration of less than the rise time or the fall time – at some point in the rise or fall, the light will not be received by the receptor.

Wash does not teach the reference light being emitted in a substantially vertical direction. Bouton teaches the reference light being emitted in a substantially vertical direction. Wash can only be used to determine if the head of the club is properly aligned because it only has one emitter and one detector. Bouton can determine not only if the head is aligned, it can determine the height, position, and speed of the club head. (Fig 9) Providing additional information would improve the ability of the golfer. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Wash in view of Bolton to emit the light in a substantially vertical direction in order determine the height, position, and speed of the club head in addition to the alignment of the head in order to provide additional information that would improve the ability of the golfer.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Reference Name	US Patent Number	Applicability
White	4,477,079	Golf Swing Trainer
Perkins	4,997,189	Golf Swing Trainer
Pelz et al.	4,251,077	Golf Swing Trainer
Foster	4,146,230	Golf Swing Trainer

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corbett B. Coburn whose telephone number is (703) 305-3319. The examiner can normally be reached on 8-5:30, Monday-Friday, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on (703) 308-1806. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

cbc
June 26, 2003

JESSICA HARRISON
PRIMARY EXAMINER